1: Identification

1.1 Product identifier

Trade name: AFCONA - 2724

Application of the substance / the mixture: Paint Additives

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:
Haiman AFCONA Chemicals Co., Ltd
29, Daqing Road, Qing-Long Chemical Industrial Park, Haimen, Jiangsu Province, 226121, P.R.China
Tel.: +82-513-82658995

Information department: Product safety department.

1.4 Emergency telephone number:
For Hazardous Materials [or Dangerous Goods] Incident
Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night
Within USA and Canada: 1-800-424-9300 CCN796211 or +1 703-527-3887 (collect calls accepted)

2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.

GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.
Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

GHS07

Acute Tox. 4 H332 Harmful if inhaled.
Eye Irrit. 2A H319 Causes serious eye irritation.
STOT SE 3 H335 May cause respiratory irritation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008
The product is classified and labeled according to the CLP regulation.

Hazard pictograms

GHS02 GHS07 GHS08

Signal word Danger

(Contd. on page 2)
Hazard-determining components of labeling:
- 4-methylpentan-2-one
- Solvent naphtha (petroleum), light arom.
- Distillates (petroleum), hydrotreated light
- 2,6-dimethylheptan-4-one

Hazard statements
- H226 Flammable liquid and vapor.
- H332 Harmful if inhaled.
- H319 Causes serious eye irritation.
- H351 Suspected of causing cancer.
- H335 May cause respiratory irritation.
- H304 May be fatal if swallowed and enters airways.

Precautionary statements
- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P241 Use explosion-proof electrical/ventilating/lighting/equipment.
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray
- P280 Wear protective gloves / eye protection / face protection.
- P240 Ground/bond container and receiving equipment.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P264 Wash thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
- P305+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P331+P357 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P312 Call a POISON CENTER/doctor if you feel unwell.
- P308+P313 IF exposed or concerned: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P331 Do NOT induce vomiting.
- P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.
- P405 Store locked up.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:
- NFPA ratings (scale 0 - 4)
  - Health = 1
  - Fire = 3
  - Reactivity = 0

HMIS-ratings (scale 0 - 4)
- HEALTH = 1
- FIRE = 3
- REACTIVITY = 0

2.3 Other hazards
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPoB: Not applicable.
3: Composition/information on ingredients

- 3.2 Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.

### Dangerous components:

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Chemical Name</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>108-10-1</td>
<td>4-methylpentan-2-one</td>
<td>25-50%</td>
</tr>
<tr>
<td>64742-95-6</td>
<td>Solvent naphtha (petroleum), light arom.</td>
<td>10-25%</td>
</tr>
<tr>
<td>64742-47-8</td>
<td>Distillates (petroleum), hydrotreated light</td>
<td>10-25%</td>
</tr>
<tr>
<td>108-83-8</td>
<td>2,6-dimethylheptan-4-one</td>
<td>2,5-10%</td>
</tr>
<tr>
<td>108-65-6</td>
<td>2-methoxy-1-methylethyl acetate</td>
<td>2,5-10%</td>
</tr>
</tbody>
</table>

4: First-aid measures

- 4.1 Description of first aid measures
- General information:
  Immediately remove any clothing soiled by the product.
  Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- After inhalation:
  Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
  In case of unconsciousness place patient stably in side position for transportation.
- After skin contact:
  Immediately rinse with water.
- After eye contact:
  Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing:
  If symptoms persist consult doctor.

- 4.2 Most important symptoms and effects, both acute and delayed
  No further relevant information available.

- 4.3 Indication of any immediate medical attention and special treatment needed
  No further relevant information available.

5: Fire-fighting measures

- 5.1 Extinguishing media
- Suitable extinguishing agents:
  CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- For safety reasons unsuitable extinguishing agents: Water with full jet

- 5.2 Special hazards arising from the substance or mixture
  No further relevant information available.

- 5.3 Advice for firefighters
  Protective equipment: Mouth respiratory protective device.

6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
  Wear protective equipment. Keep unprotected persons away.
- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- 6.3 Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Dispose contaminated material as waste according to item 13.
  Ensure adequate ventilation.
- 6.4 Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
7: Handling and storage

- 7.1 Precautions for safe handling
  Keep receptacles tightly sealed.
  Ensure good ventilation/exhaustion at the workplace.
  Open and handle receptacle with care.
  Prevent formation of aerosols.

- Information about protection against explosions and fires:
  Keep ignition sources away - Do not smoke.
  Protect against electrostatic charges.
  Keep respiratory protective device available.

- 7.2 Conditions for safe storage, including any incompatibilities

  Storage:
  - Requirements to be met by storerooms and receptacles: No special requirements.
  - Information about storage in one common storage facility: Not required.
  - Further information about storage conditions: Keep receptacle tightly sealed.

- 7.3 Specific end use(s) No further relevant information available.

8: Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.

- 8.1 Control parameters

  - Components with limit values that require monitoring at the workplace:

    | Component               | PEL               | REL               | TLV               |
    |-------------------------|-------------------|-------------------|-------------------|
    | 4-methylpentan-2-one    | Long-term value: 410 mg/m³, 100 ppm | Short-term value: 300 mg/m³, 75 ppm | Short-term value: 307 mg/m³, 75 ppm |
    |                         | Long-term value: 205 mg/m³, 50 ppm | Long-term value: 82 mg/m³, 20 ppm |
    | 2,6-dimethylheptan-4-one| Long-term value: 290 mg/m³, 50 ppm |
    | 2-methoxy-1-methylethyl acetate | Long-term value: 145 mg/m³, 25 ppm |

  - Ingredients with biological limit values:

    | Component               | BEI 1 mg/L |
    |-------------------------|------------|
    |                         | Medium: urine |
    |                         | Time: end of shift |
    |                         | Parameter: MIBK |

  - Additional information: The lists that were valid during the creation were used as basis.

- 8.2 Exposure controls
  - Personal protective equipment:
    - General protective and hygienic measures:
      Keep away from foodstuffs, beverages and feed.
      Immediately remove all soiled and contaminated clothing.
      Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.

**Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

**Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:**

Tightly sealed goggles

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### 9: Physical and chemical properties

**9.1 Information on basic physical and chemical properties**

**General Information**

**Appearance:**
- **Form:** Fluid
- **Color:** According to product specification
- **Odor:** Characteristic
- **Odour threshold:** Not determined.

**pH-value:** Not determined.

**Change in condition**
- **Melting point/Melting range:** Undetermined.
- **Boiling point/Boiling range:** 114 °C (237 °F)

**Flash point:** 24 °C (75 °F)

**Flammability (solid, gaseous):** Not applicable.

**Ignition temperature:** 460 °C (860 °F)

**Decomposition temperature:** Not determined.

**Auto igniting:** Product is not selfigniting.

**Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
Trade name: AFCONA - 2724

- Explosion limits:
  - Lower: 1.7 Vol %
  - Upper: 9.0 Vol %

- Vapor pressure at 20 °C (68 °F):
  8 hPa (6 mm Hg)

- Density at 20 °C (68 °F):
  0.83 g/cm³ (6.926 lbs/gal)

- Relative density:
  Not determined.

- Vapour density:
  Not determined.

- Evaporation rate:
  Not determined.

- Solubility in / Miscibility with Water:
  Not miscible or difficult to mix.

- Partition coefficient (n-octanol/water):
  Not determined.

- Viscosity:
  - Dynamic:
  Not determined.
  - Kinematic:
  Not determined.

- Solvent content:
  - Organic solvents: 85.8 %
  - VOC content:
  85.8 %
  712.1 g/l / 5.94 lb/gl

- Solids content: 14.2 %

- 9.2 Other information
  No further relevant information available.

10: Stability and reactivity

- 10.1 Reactivity
  No further relevant information available.

- 10.2 Chemical stability
  - Thermal decomposition / conditions to be avoided:
    No decomposition if used according to specifications.

- 10.3 Possibility of hazardous reactions
  No dangerous reactions known.

- 10.4 Conditions to avoid
  No further relevant information available.

- 10.5 Incompatible materials:
  No further relevant information available.

- 10.6 Hazardous decomposition products:
  No dangerous decomposition products known.

11: Toxicological information

- 11.1 Information on toxicological effects
  - Acute toxicity:
    Harmful if inhaled.

- LD/LC50 values that are relevant for classification:
  108-10-1 4-methylpentan-2-one
  Oral LD50: 2080 mg/kg (rat)
  Dermal LD50: 16000 mg/kg (rab)
  Inhalative LC50/4 h: 8.3-16.6 mg/l (rat)

  64742-95-6 Solvent naphtha (petroleum), light arom.
  Oral LD50: >6800 mg/kg (rat)
  Dermal LD50: >3400 mg/kg (rab)
  Inhalative LC50/4 h: >10.2 mg/l (rat)

- Primary irritant effect:
  - on the skin:
    Based on available data, the classification criteria are not met.
  - on the eye:
    Causes serious eye irritation.

(Contd. on page 7)
Trade name: AFCONA - 2724

- Sensitization: Based on available data, the classification criteria are not met.
- Additional toxicological information:

Carcinogenic categories
- IARC (International Agency for Research on Cancer)
  108-10-1 4-methylpentan-2-one
- NTP (National Toxicology Program)
  None of the ingredients is listed.
- OSHA-Ca (Occupational Safety & Health Administration)
  None of the ingredients is listed.

12: Ecological information

- 12.1 Toxicity
  - Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability: No further relevant information available.
- 12.3 Bioaccumulative potential: No further relevant information available.
- 12.4 Mobility in soil: No further relevant information available.
- Additional ecological information:
  - General notes:
    Water hazard class 2 (Self-assessment): hazardous for water
    Do not allow product to reach ground water, water course or sewage system.
    Danger to drinking water if even small quantities leak into the ground.
- 12.5 Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
- 12.6 Other adverse effects: No further relevant information available.

13: Disposal considerations

- 13.1 Waste treatment methods
  - Recommendation:
    Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
  - Uncleaned packagings:
    - Recommendation: Disposal must be made according to official regulations.

14: Transport information

- 14.1 UN-Number
  DOT, ADR, IMDG, IATA
  UN1866
- 14.2 UN proper shipping name
  DOT
  ADR
  IMDG, IATA
  Resin solution
  1866 Resin solution
  RESIN SOLUTION
- 14.3 Transport hazard class(es)
  - DOT
    - Class: 3 Flammable liquids
### 14.4 Packing group
- DOT, ADR, IMDG, IATA: III

### 14.5 Environmental hazards:
- Marine pollutant: No

**Warning:** Flammable liquids

### 14.6 Special precautions for user
- Danger code (Kemler): 30
- EMS Number: F-E,S-E
- Stowage Category: A

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
- Not applicable.

### Transport/Additional information:
- DOT
  - Quantity limitations: On passenger aircraft/rail: 60 L, On cargo aircraft only: 220 L

#### ADR
- Excepted quantities (EQ)
  - Code: E1
- Maximum net quantity per inner packaging: 30 ml
- Maximum net quantity per outer packaging: 1000 ml

#### IMDG
- Limited quantities (LQ)
  - Code: E1
- Maximum net quantity per inner packaging: 30 ml
- Maximum net quantity per outer packaging: 1000 ml

#### UN "Model Regulation":
- UN 1866 RESIN SOLUTION, 3, III

### 15: Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara
  - Section 355 (extremely hazardous substances):
    - None of the ingredient is listed.
  - Section 313 (Specific toxic chemical listings):
    - 108-10-1 4-methylpentan-2-one
    - 64742-95-6 Solvent naphtha (petroleum), light arom.
    - 64742-47-8 Distillates (petroleum), hydrotreated light
    - 108-83-8 2,6-dimethylheptan-4-one
    - 108-65-6 2-methoxy-1-methylethyl acetate
    - 57-55-6 propane-1,2-diol

(Contd. on page 9)
Trade name: AFCONA - 2724

- Proposition 65

- Chemicals known to cause cancer:
  108-10-1 4-methylpentan-2-one

- Chemicals known to cause reproductive toxicity for females:
  None of the ingredients is listed.

- Chemicals known to cause reproductive toxicity for males:
  None of the ingredients is listed.

- Chemicals known to cause developmental toxicity:
  108-10-1 4-methylpentan-2-one

- Cancerogenity categories

  - EPA (Environmental Protection Agency)
    108-10-1 4-methylpentan-2-one
  - TLV (Threshold Limit Value established by ACGIH)
    None of the ingredients is listed.
  - NIOSH-Ca (National Institute for Occupational Safety and Health)
    None of the ingredients is listed.

- Labelling according to Regulation (EC) No 1272/2008
  The product is classified and labeled according to the CLP regulation.

- Hazard pictograms

  GHS02  GHS07  GHS08

- Signal word Danger

- Hazard-determining components of labeling:
  4-methylpentan-2-one
  Solvent naphtha (petroleum), light arom.
  Distillates (petroleum), hydrotreated light
  2,6-dimethylheptan-4-one

- Hazard statements
  H226 Flammable liquid and vapor.
  H332 Harmful if inhaled.
  H319 Causes serious eye irritation.
  H351 Suspected of causing cancer.
  H335 May cause respiratory irritation.
  H304 May be fatal if swallowed and enters airways.

- Precautionary statements
  P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
  P241 Use explosion-proof electrical/ventilating/lighting/equipment.
  P261 Avoid breathing dust/fume/gas/mist/vapors/spray
  P280 Wear protective gloves / eye protection / face protection.
  P240 Ground/bond container and receiving equipment.
  P242 Use only non-sparking tools.
  P243 Take precautionary measures against static discharge.
  P264 Wash thoroughly after handling.
  P271 Use only outdoors or in a well-ventilated area.
  P201 Obtain special instructions before use.
  P202 Do not handle until all safety precautions have been read and understood.
  P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
  P303 + P361 + P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER/doctor if you feel unwell.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P331 Do NOT induce vomiting.
P337+P338 In case of fire: Use for extinction: CO2, powder or water spray.
P405 Store locked up.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P403+P235 Store in a well-ventilated place. Keep cool.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16: Other information
This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Department issuing SDS: Product safety department.
- Contact: Mr. Saw Eng Nee
- Date of preparation / last revision 10/27/2015 / -

Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 3: Flammable liquids, Hazard Category 3
Acute Tox. 4: Acute toxicity, Hazard Category 4
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
Carc. 2: Carcinogenicity, Hazard Category 2
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
Asp. Tox. 1: Aspiration hazard, Hazard Category 1